APPENDIX 2

P&A PROCEDURE FOR WELLS TO BE ABANDONED PRIOR TO INJECTION

CTV will abandon one hundred fifty-seven (157) wells within the AoR prior to injection of CO₂ to isolate the 26R sand from other permeable reservoirs and to ensure confinement through the Reef Ridge upper confining layer. Appendix 1 provides the list of all wells within the AoR and indicates which wells will be abandoned prior to injection. This appendix provides the plugging and abandonment procedures to demonstrate that plugging will ensure isolation of the 26R sand.

Abandonment operations will be conducted using methods designed to prevent the movement of fluid into USDW and will include the use of materials compatible with the carbon dioxide stream. As these are oil and gas wells regulated through CalGEM primacy, procedures and cement plug placement will also adhere to regulations established within the California Code of Regulations, Chapter 4, Article 3, §1723.

Plugging Procedures*

The following procedures describe the proposed plugging operations:

- 1. Blowout Prevention Equipment (BOPE) is installed on the wellhead.
- 2. Downhole production or injection equipment is removed from the casing, and the well is cleaned out to Plugback Measured Depth (PBMD) or as deep as possible. The cleanout depth will be witnessed by CalGEM and approved.
- 3. Plug 1 will be placed from the approved cleanout depth across the production interval and >100' into the Reef Ridge shale. The plug will be tagged and witnessed by CalGEM to ensure the plug depth and length satisfies permit requirements.
- 4. Plug 2 will be placed at the top of the Etchegoin formation and >100' into the San Joaquin formation. The plug will be tagged and witnessed by CalGEM to ensure the plug depth and length satisfies permit requirements.
- 5. Plug 3 will be placed at the top of the San Joaquin formation. The plug will be extended to cover >100' above the base of the USDW, if present. The plug will be tagged and witnessed by CalGEM to ensure plug depth and length satisfies permit requirements.
- 6. Plug 4 will be placed such that the surface plug is >25' in length, and well casing can be cut off between 5' and 10' from surface. The plug will be witnessed at surface by CalGEM to ensure plug depth and length satisfies permit requirements.
- 7. BOPE will be removed, and well casing will be cut between 5' and 10' below surface.
- 8. A steel plate will be stamped with the last five digits of the API well number for identification. The steel plate will be at least as thick as the outer well casing, and it will be welded around the circumference.

^{*} These procedures are considered standard and are subject to change depending on the wellbore conditions. Any deviation from the permitted procedures affecting abandonment requirements will be conveyed, agreed upon and documented by CalGEM and CRC prior to the change.

All portions of the well not plugged with cement are filled with inert mud meeting specifications according to California Code of Regulations, Chapter 4, Article 3, §1723(b). to prevent migration of fluids within the wellbore.

Plugging Details for Wells to be Abandoned

Well-specific plugging plans are provided in the following tables for each well to be abandoned prior to CO₂ injection. Cement type, volume, density, and placement method for each plug described above are indicated. The indicated top and bottom plug depths necessary to ensure isolation of 26R Sand and meet CalGEM abandonment requirements are determined based on the well-specific measured depths of the relevant geologic formations described above.







































